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Surgical Dyzentry

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Ad utilitatem vita nostra concilia  
factaque nostra diligenda sunt.  
Pacitus.

W<sup>m</sup> Barnwell Jr

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Sgt. W. J. Russell, Winnipeg.

A few observations

on

Tropical Dysentery

Respectfully submitted to the  
Medical professors  
of the  
University of Pennsylvania

by a Student of Medicine.

The subject which I have chosen  
for the present occasion, is one on which so  
much has already been said by able and  
ingenuous writers, that nothing new can be  
expected from me. The healing  
art however is one of those sciences, the im-  
perfection of which is daily demonstrated, both  
in theory and in practice, and as the eloquent  
Bush has expressed it. "Offers to the  
youthful mind every thing as new, whilst  
to physicians engaged in practice, or ad-  
vanced in life, variety prevents gratification  
in study and practice; and to both; the  
objects of knowledge, and the subjects of  
inquiry are inexhaustable; and of course  
equal in duration to the age of man." \*

Notwithstanding the labours of

\* Introductory Lectures page 225.

3.

of Medical men, for the decidedness of difficult and obscure points connected with the science of medicine, and admitting as we must, the immense improvements of later years, yet its imperfections too evidently demonstrate there is yet much left to exercise the talents and ingenuity of medical practitioners — and we (Students) who have not as yet acquired the quickness of perception, and soundness of judgment; without which we are unable fully to comprehend the nature of disease, must be indefatigable in our inquiries — and such exertions as tend to alleviate the anguish of disease; and to liven the weight of human misery, cannot fail to be laudable.

I am convinced that few of us are aware of <sup>the</sup> momentous responsibility we undertake when we engage in the study of medicine. For assuredly if any study demands steady and

study and unremitting zeal; that science which teaches us to contend with the multiplied maladies that afflict our species deserves to rankled amongst the most expon-sible. That such feelings as ex-cite individual, independently of their professional obligations, to devote their time and talents to the common interest have ever been considered as the most ho-norable.

Previously to entering on the disease it may be proper to take a short view of the general effects resulting from changing a tem-perature for a tropical climate. Amongst the inhabitants of more temperate and colder regions, the natural constitution is that of muscular irritability and promptitude to action the nervous mobility is not so great; the influence of that power being more steady, equal

equal & und moderate. In a cold climate the solids are denser, the blood contains a greater proportion of coagulation and the circulating mass we have reason to believe is in greater proportion, the cuticular discharge and biliary secretion are in [greater proportion] smaller quantity: the use of animal food and fermented liquors is more indulged in, and with greater impunity.

The change from a cold to a hot climate, gives rise to effects upon the frame, which might be expected from a constant, and powerful influence acting upon an accumulated excitability, which hitherto had been subject to the impression of a less powerful stimuli; hence the circulation is increased and hurried, the respiration more frequent; latitude and longitude are felt; with insipitude to the

To the customary employment, or exertions, the susceptibility to nervous impressions augmented; the disposition became more irritable, and with the exception of the urine, all the secretions became augmented: the cutaneous and biliary peculiarly so: and the latter from its effect on the intestinal canal, we have every reason to believe it peculiarly acid, going rise to the disease under consideration, and which has received different names by writers, as Bilious Flux, Hepatic derangement &c.

The impression being stronger: the action of the vessels of the system and skin being greater than in due proportion to the strength of the vital power: or to the degree in which the muscular irritability is excited by the action of the system: the

the effect is elevation; and a weakened performance of the functions: hence nervous irritability increases — and where these effects are aided by the abuse of spirituous liquors, this irritability of frame increases to a great degree, rendering even to the mind itself \*

Whilst muscular action is by reflex action strengthened and more readily performed; that of the organs of sense, or power of receiving sensual impressions, is, by the same means diminished. The pleasurable feelings of irritation as produced by the application of the liquor to the nerves of the organ of taste, by the increased

\* In few situations is this better illustrated than on board ship of war, where the contrast between the absolute and temperate is peculiarly striking, not only as regards the capability of the latter to support incipiences, but

increased action and secretion of the vessels of the viscera ; or by those pulses of the somniferous itself ; become at length exhausted, <sup>not</sup> to be again easily called forth. Then digestion becomes impaired ; the appetite precarious ; the gastric and hepatic secretions irregular and varied in quality.

Such important functions involve the others in their train, and the sensuum participating in gives rise to blunting of perception and apathy, with occasional violent emotion from the slightest cause.

Such then is a short sketch of the changes likely to result from a short residence in a warm climate. And to individuals whose constitutions have not been injured by excess, or such effects entailed by progenitors ; it is not improbable such change might be made without much

without much sacrifice of healthful existence by such persons as at the same time observe a due attention to regimen and exercise.

It is much to be regretted however that the great majority of those who resort to such clinics, are from habit as well as education totally unprepared to encounter such changes. Hence the ravages of disease in these countries, or as more eloquently described by a writer "cause the bones of India to be protruding with the graves of the dead". And amongst the foremost of those maladies that have proven the scourge of foreignness in these climes was since the days of the adventurous Gama, may be placed Trop. Dysentery.

I know not whether it will be generally admitted that heat, or an increase

increase of temperature will be deemed indispensable to the production of this disease, or be admitted as a proof of the hepatic system always participating in, and being in fact the primary seat of the disease, for it would indeed seem that nothing that could be taken into the alimentary canal as food or drink could have such a pernicious tendency.

That the Liver is capable of producing or secreting bile in such quantity as to give rise to all the grades of intestinal irritation from the slightest tenderness to the severest form of dysentery? I am well convinced, and that by without participating in disease, is by its secretion capable of producing it in other parts. This is by no

no more a new idea, and is corroborated by what Sanderson says page 104. The increased and increased action of a gland says he, has much influence in determining the nature of the fluid secreted. In some cases bile is discharged of a green colour and extremely acrid. In another place he says "The inhabitants of warm climates are extremely subject to disease originating from increased secretion of bile; and the excess of its quantity in the prima via, which either by surgestion into the stomach, produces a general languor of the body, together with nausea, loss of appetite, foul tongue and indigestion; or being directed to the intestines; with a painful diarrhoea, ultimately tending to weaken their tone, and disturb their regular peristaltic motion.

Johnson the author on Tropical climates, and whose experience was

was ample, says "The incessant and diluted  
 secretion of bile, debilitates and render-  
 -able the whole tract of the alimentary canals,  
 and in page 16 he says speaking of bile  
 "In what this affection con-  
 -sists it is certainly not easy to say.  
 In high degree of it, attendant on hu-  
 -man secretion both the colour and taste  
 are surprisingly altered; since it occasion-  
 -ally assumes all the shades between a deep  
 -bottle green, and a jet black; pos-  
 -sibly at one time; an acidity that sets  
 -the teeth on edge; at other times,  
 -and indeed more frequently an acrimony  
 -that seems absolutely to corrode the tho-  
 --rax and fauces, as it passes off  
 -by vomiting; - and when passing down  
 -wards can be compared to nothing more  
 -appropriate than the sensation which one  
 -would expect from boiling lead passing

through the intestines. Many other proofs equally forcible might be add'd from intelligent authors who have observed for themselves and written on the spot, but having determined to confine myself to a few leading observations it will be unnecessary for me to enter more into detail and shall proceed first to notice the disease as it appears amongst foreigners and secondly to give in as concise a manner as practicable the leading indications in its treatment.

This disease has received different appellations from writers, as Hepatic and Bilious Flux, Putrid

Petrid Intestinal Remittant Fever  
and of late with more propriety Tropical Dysentery; and the latter name is evidently more appropriate in as much as it is the consequence of vitiated Bile: and treated by appropriate remedies: differing materially from such as are recommended for the treatment of this disease, as it exists in colder or more temperate regions.

The disease under consideration commences with listlessness and languor, nausea and not unfrequently vomiting of bile, slight rigors, febrile heat, thirst, and occasionally irritability of stomach, insistent calls to go to stool, severe tenesmus, flatulent distention of abdomen a pulse small and quick, the wave

evacuations per anum consisting of fothy mucus mixed with blood, though never any scybala. In the more aggravated form of the disease the gaipping and tenderness becomes exceedingly severe, great prostration of strength, constant calls to stool, and inability to evacuate any thing, except perhaps a little bloody mucus: lancinating pain over the abdomen and pubis, dysuria, and often a suppuration of urine, accompanied with an irritable stomach.

If these symptoms are not soon relieved, these succeed imbecility of the intellectual functions, the pupil becomes ~~obscurely~~ contracted, hiccups, a languid scarcely perceptible pulse, involuntary discharges, clammy sweat and death at last puts a period to the suffering. It is however

more commonly the case, that the disease is protracted to the chronic form, hence deaths in the acute stage are comparatively rare.

Such is the progress of the disease when interrupted by medicine, yet <sup>when</sup> these are interposed with due caution, the symptoms in a majority of cases quickly subside; and perhaps in few diseases is the remedial effect of medicine so unequivocal, as in a first attack of this disease, - would I could say so of subsequent ones.

From the pain that exists about the Hypochondriac region one would be led to believe there invariably existed disease of the Liver, and when the colon is much diseased, as it always is in this complaint, we may from external exami-

external examinations frequently confound it with disease of the Liver, & vice versa.

I must confess I ranked amongst those who were deceived by such examinations. I imagined the Liver in many cases not only diseased, but nearly removed by abscesses; yet in the post mortem examinations I was not a little surprised at being unable to detect any appearance of disease, though I made a minute search; cutting into every part. It is true I examined but four cases - of nineteen that died of this complaint; yet these were amongst the most protracted and genuine cases that occurred of two hundred and seventy three patients.\*

On examining the contents of the abdomen, the colon and rectum were

\* Of 273 cases of the disease which occurred on board 249 were cured, 19 died, and 4 were sent to

were found to be the principal seat of disease their coats much thickened; with ulceration of the villous or internal coat, and the <sup>large</sup> intestines universally found lined with a dark coloured fluid; which on being removed demonstrated ulceration, and in many places absence of the internal coat, whilst in ~~some~~<sup>other</sup> parts it was remarkably thickened, presenting a very uneven surface.

The diameter of the colon seemed in many places considerably diminished. This was particularly the case at the post. arch, and in the Hiac regions where it is tied down by the peritoneum, and also in parts of the sigmoid flexure; and when opened emitted a very offensive effluvia. The principal structural disengagement existed in the transverse arch of the colon, the Rectum next, and least of all the small intestine. such

such disease of the colon will account for the pain experienced in the Hypochondriac region when pressure or heat made externally.

The Stomach and Gall Bladder presented nothing remarkable.

Nothing short of such examinations could have convinced me; and indeed I was convinced against my will; for I had unhesitatingly pronounced previously to examination that the Liver was diseased, and dissection alone convinced me of my error.

We next proceed to the treatment, which is very simple; and as laid down by Johnson with one exception I believe will be found applicable to most cases. That part of the treatment laid down by

by him, to which I object is bloodletting  
which should always be carefully avoided as  
should also that class of cathartics which  
are denominated drastic.

We shall quote his own words in  
page 211 he says, "When the blood  
appears abnormally in the stools, whether the  
fever run high or not emetics may  
be employed without any apprehension of  
that danger Dubitity.

Such an opinion from such high au-  
thority I consider of a dangerous tendency,  
it is however in a measure qualified by the  
ambiguity of the word abnormally, which  
admits of much latitude. I am not  
a little at a loss to know what he meant.  
To convey page 202 where he says, "In  
every case of the disease which has fallen under  
his observation; and the number he adds  
has

it has not been insensitible; two functions  
which invariably bear distinct from the very in-  
ception; and those have other arrangements in  
relation to their train; these were the functions of  
the Skin and Liver &c. respiration  
and biliary excretion. And  
she calls upon any one who has minutely  
examined this disease at the bedside; to  
produce a single instance in which these  
functions were carried on in a natural  
manner; at any period of the disease.

What does this prove? certain-  
ly nothing; and is merely a statement of  
facts that must exist more or less in  
any disease, for does not disease imply  
a derangement of the functions?

But to return to the treatment,  
and here unhesitatingly I pronounce this debi-  
lity to be no barrier as Johnson terms

lume it. to this conclusion I have been led from experience, having proven the fallacy of Johnson's practice or practice upon the same class of men. it is therefore with some confidence, I say so; a class too I grant of all others the most unfavourable for depletion of this nature &c and I do not hesitate to say that whoever pursue such practice will be convinced of their injurious tendency and will but too frequently induce a debility, from which it will be found difficult, if at all practicable to recover such as are subjected to it, for bleeding, even when there exists a tormenting pain and bloody evacuations, the symptoms which according to Johnson

The class alluded to are scum or vipers of war. More temperate might have borne depletion better, but Johnson makes no exception, and such was the class amongst which he introduced the disease.

warrant us in doing so. is not calculated to promote a cure is or alleviate any one symptom. One of the principle indications in the treatment, is to support the strength of the patient, or in other words to remove the disease at as little waste of the constitutional vigor as practicable. And to accomplish this whatever may have been the discrepancy of medical men as to the origin of the disease; all have been unanimous in recommending Mercury for its cure. and the practice which I believe will be frequently found to succeed, will be to administer at the commencement of the disease; or as early as called on, from ten to twelve grains of Calomel, followed in a few hours by an ounce or two of Castor oil; whilst at the same time from fifteen grains <sup>to 21</sup> of Sicc. should be

should be put into about three ounces of water and allowed to infuse for eight or twelve hours; after which it may be given to the patient at once & followed by hot drinks of barley, rice water or gruel. These will generally produce several evacuations, after which the following formula, for which I am indebted to the Lectures of the present professor of the Theory and Practice of Medicine for. . . composed of two grains of Calonel, one of Spec. and one half of opium, given in the form either of a pill or powder and repeated every three or four hours, until the gums became slightly tender. an effect which will generally be produced in the course of twenty-four or thirty six hours & and with an evident abatement of all the symptoms. At the expiration of this time it may be

be advisable to administer some mild aperient medicine; and this intention will be answered by a dose of Castor oil, or magnesia. In this way we may give the formula already recommended, and the aperients alternately; until the disease be cured, or relieved; and in first attacks it will readily yield.

The indications to be constantly kept in view, are first to change or diminish the bilious secretion. Secondly to keep the bowels open; and lastly not the least important to soothe the irritated villous coat of the intestinal canal. To meet the first, the Calomel Opium and opium will be found adequate; for the second the aperients already enumerated. and for the third and most difficult on board ship, the blandest aliment, as Sago, Papacea, arrow root

panada chicken soup &c and what all claim a decided preference when it can be procured, is mutton soup.

During the chronic stage of the complaint I have known a remarkable propensity for milk. and this even with those who during health were averse to it.

No benefit will be derived from the vitriic acid, from the opium, in large emulsions, or the cinchona either in substance or infusion,

Persons advanced in years, or whose constitutions have ~~ever~~ been impaired by habit of intemperance, are peculiarly susceptible of this disease; and to such its ravage are principally confined; whereas when it attacks the tempestive and abstemious it is very much within the control of

of medicine, indeed it is a matter of sur-  
prise to patients labouring under the dis-  
ease to find how soon very disagreeable  
symptom subsides on the slightest medicinal of-  
-fice in a first attack ; whereas during  
very succeeding one it becomes more difficult  
to remove ; when it does not yield to the  
medicine enumerated ; and becomes chro-  
nic, I know of nothing calculated to  
afford the shadow of hope ; unless it be  
change of climate

Tropical Dysentery may be said  
to be a disease which marks out its victims  
and pursues them with an unrelenting swif-  
tness, attacking them again and again  
until at length the constitution worn  
down by its violence, sinks.

The author is aware that in the

the treatise has recommended he has offered nothing new; he might have extended his observations to a much greater length by a relation of the unsuccessful application of numerous other means recommended by writers. He is convinced however that such a recital could prove of no service of use; and would unnecessarily occupy the time of the gentlemen who may do him the honour of its perusal, and unaided by the seducing embellishments of hypothetical reasoning, he has endeavoured in as concise a manner as the subject permitted to sketch out such means as he has known most useful, would he could add they had always been successful. But it is humiliating for us frequently to find our brightest prospects overcast; and the most approved means of cure occasionally ineffectual.

Its medicine was ever found universally  
successful in any complaint ; and it would  
be vain for us to recommend one possessing  
these qualities in Dysentery.

